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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

July 20, 2010

TO: Internal File

THRU: April Abate, Hydrologist and Team Lead 7-26-2010

FROM: James C. Owen, Reclamation Engineer

RE: Proposed 2010 NWS Mitigation Activities, Canyon Fuel Company, LLC, SUFCO Mine, C/041/0002, Task #3580

SUMMARY:

On June 22, 2010, the Division of Oil, Gas & Mining received a submittal for the proposed 2010 investigation and mitigation activities for the North Water Spring Area (NWS) for the Sufco Mine. The proposal involves pumping water from spring M-SP89 to Pines 105, 310, and 311 in the NWS Area.

The spring (M-SP89) has an average flow of approximately 20 gallons per minute (gpm). Sufco is proposing to divert approximately 10 gpm to replace displaced flows in the NWS Area. The system will include collection boxes, tees, control valves, diversion boxes, a 2" HDPE water line, solar panels, solar power lines, a solar powered pump, and fences for disturbance prevention. The 2" water line will be buried using a trencher. No new roads are proposed as part of the project.

TECHNICAL ANALYSIS:

OPERATION PLAN

SUPPORT FACILITIES AND UTILITY INSTALLATIONS

Regulatory Reference: 30 CFR Sec. 784.30, 817.180, 817.181; R645-301-521, 301-526.

Analysis:

The application indicated that the mine is still in the process of determining the best pumping equipment as well as solar panel sizes for the process and that as soon as the information is developed that it will be forwarded to the Division.

Findings:

As per R645-301-521, the applicant should include a plan, with maps, cross sections, narrative, descriptions, and calculations indicating how the relevant requirements are met in terms of the adequacy of all pumping, piping, and powering equipment that will be used in the system. The Division requests that when the details of pump size, solar panel size, configurations, etc. are submitted, that adequate calculations are provided indicating that the pumping system will be of sufficient capacity to accommodate the size, length, and flow requirements of the system.

RECLAMATION PLAN

GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

Analysis:

The application indicated that surface reclamation of the water line trench would be conducted in such a manner as to discourage the use of the route by motorized vehicles. No new roads are proposed as part of the project. It is anticipated the construction of the spring collection system will be completed by hand with transportation of some materials taking place with the aid of a helicopter. Existing roads will be used to access the proposed solar panel location.

Findings:

The applicant must submit a detailed timetable for the completion of any reclamation that is associated with the project as per R645-301-542.100. Also, according to R645-301-526 and R645-301-526.210, the applicant must include a narrative explaining the construction, modification, use, maintenance, and removal of the water line system. In addition, a registered professional engineer must certify maps, cross sections, etc.

RECOMMENDATIONS:

The application will not be recommended for approval until the following deficiencies are addressed:

- As per R645-301-521, the applicant should include a plan, with maps, cross sections, narrative, descriptions, and calculations indicating how the relevant requirements are met in terms of the adequacy of all pumping, piping, and powering equipment that will be used in the system. The Division requests that when the details of pump size, configuration, etc. are submitted, that adequate calculations are provided indicating that the pumping system will be of sufficient capacity to accommodate the size, length, and flow requirements of the system.

- The applicant must submit a detailed timetable for the completion of any reclamation that is associated with the project as per R645-301-542.100. Also, according to R645-301-526 and R645-301-526.210, the applicant must include a narrative explaining the construction, modification, use, maintenance, and removal of the water line system. In addition, a registered professional engineer must certify maps, cross sections, etc.